

Claims:

1. (Original): An aircraft weather radar display method comprising:
selecting a display distance value;
retrieving weather radar return information stored in a plane of voxels in a buffer
based on the selected display distance value and aircraft position information; and
generating an image based on the retrieved weather radar return information.
2. (Original): The method of Claim 1, wherein the voxel plane associated with the
retrieved weather return information is perpendicular to the aircraft's heading.
3. (Original): The method of Claim 1, wherein the voxel plane associated with the
retrieved weather return information is at a constant range from the aircraft.
4. (Original): The method of Claim 1, further comprising
selecting a display altitude range,
wherein retrieving radar return information is further based on the selected display
altitude range
5. (Original): The method of Claim 1, wherein at least one of the selecting the display
distance value or the display altitude range is performed by a user using a user interface device in
the aircraft.
- 6-12. (Canceled)
13. (Original): An aircraft weather radar display system comprising:
a memory configured to store weather radar return information in a buffer;
a processor coupled to the memory, the processor comprising:
a first component configured to receive a display distance value signal;

a second component configured to retrieve weather radar return information stored in a plane of voxels in the buffer based on the selected display distance value and aircraft position information; and
a third component configured to generate an image based on the retrieved weather radar return information; and
a display device configured to display the generated image.

14. (Original): The system of Claim 13, wherein the voxel plane associated with the retrieved weather radar return information is perpendicular to the aircraft's heading.

15. (Original): The system of Claim 13, wherein the voxel plane associated with the retrieved weather radar return information is at a constant range from the aircraft.

16. (Original): The system of Claim 13, further comprising a user interface device coupled to the processor and configured to generate a display altitude range signal, wherein the second component retrieves radar return information further based on the selected display altitude range

17. (Original): The system of Claim 13, further comprising a user interface device coupled to the processor and configured to generate the display distance value signal.

18-24. (Canceled)

25. (Original): An aircraft weather radar display computer program product comprising:
a first component configured to store weather radar return information in a buffer;
a second component configured to receive a display distance value signal;
a third component configured to retrieve weather radar return information stored in a plane of voxels in the buffer based on the selected display distance value and aircraft position information; and

a fourth component configured to generate an image based on the retrieved weather radar return information.

26. (Original): The product of Claim 25, wherein the voxel plane associated with the retrieved weather radar return information is perpendicular to the aircraft's heading.

27. (Original): The product of Claim 25, wherein the voxel plane associated with the retrieved weather radar return information is at a constant range from the aircraft.

28. (Original): The product of Claim 25, further comprising a fifth component configured to generate a display altitude range signal, wherein the second component retrieves radar return information further based on the selected display altitude range

29. (Original): The product of Claim 25, further comprising a fifth component configured to generate the display distance value signal.

30-36. (Canceled)